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K E N T U C K Y

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# Land Air & Water

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Volume 9, Number 4

December 1998



Kentucky Natural Resources and Environmental Protection Cabinet

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**Kentucky Natural Resources  
and  
Environmental Protection  
Cabinet**

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**Roy A. Massey**  
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**Hugh Archer**  
Department for Natural Resources

**Carl E. Campbell**  
Department for Surface Mining  
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## ***Land, Air & Water is 10 years old***

*Land, Air & Water* has passed the 10-year mark. The Department for Environmental Protection published the first issue in the summer of 1988. (A copy of the cover is at right.)

*Land, Air & Water* had its beginnings in a department newsletter called *Water Watch*. Lou Martin and then-Deputy Commissioner Karen Armstrong-Cummings proposed expanding that idea and creating a department-wide magazine covering water, air, waste and environmental laboratory issues. DEP Commissioner James T. Corum agreed the department would fund the new publication.

Mrs. Martin headed up the magazine staff as departmental editor. Division co-editors were Annette Hayden, Waste; Lillie Cox, Air; Van Fritts, Water; and Cathy Mitchell, Environmental Services.

Then in 1992, the magazine changed from a departmental to a cabinet-wide publication serving all of the agencies in the Kentucky Natural Resources and Environmental Protection Cabinet including the Department for Natural Resources and the Department for Surface Mining Reclamation and Enforcement. Now the publication would cover issues including forestry, energy, soil conservation, nature preserves, biodiversity, and surface mining.

Martin went on to work on special projects for the cabinet until her retirement. Faun S. Fishback was editor from 1993 until 1996 when she transferred to the Department of Education. Eva Smith-Carroll took over the editor's chair in 1996.

A lot has changed since that first issue, but many things have stayed the same. Producing the magazine is still very much a group effort. *Land, Air and Water* is put together by the Public Information and Education Branch staff and the agency coordinators listed on this page. Another thing stayed the same. We are still writing about many of the story topics covered in that first issue, for example, "Water Quality Standards Under Review"; "Ozone, a National Debate"; and "Waste Reduction Benefits All."

And last, but not least, the No. 1 goal of *Land, Air & Water* continues to be educating Kentuckians on environmental issues.



### **Donations needed for printing costs**

## **Orchids of Kentucky poster planned**

The remarkably popular *Frogs and Toads of Kentucky* poster that was unveiled as Kentucky's 1998 Earth Day poster is the first in a series of Natural History of Kentucky posters.

*Orchids of Kentucky*, to be second in the series, was unveiled at the Mid-America Orchid Congress in Lexington Oct. 30-Nov. 1. It will be printed for 1999 Earth Day. Kentucky salamanders will be featured on the third poster in 2000.

The poster series came about as a result of recommendations to the governor from the Kentucky Biodiversity Task Force in 1995. One of the recommendations was the establishment of the Kentucky Biodiversity Council. Its mandates included studying, inventorying, and sustaining Kentucky's biological wealth, along with recommendations for public education and for legislation to develop a statewide biodiversity policy.

As a result of the formation and accomplishments of the Kentucky Biodiversity Council, individual and corporate citizens of Kentucky have taken on the challenge of assisting with informing and educating Kentuckians about the commonwealth's unique biodiversity. Notably, they have provided in-kind services such as equipment use and time, along with funding for the printing of the magazine *Kentucky Alive* and the *Frogs and Toads of Kentucky* poster.

Printing costs for the poster came from donations from individual and corporate sponsors. Only 2,000 were printed initially, but the demand was so great that eventu-

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Learn about efforts to protect our water sources (Pages 18-20)

Read about how common practices, like warming up a car in a garage, can be deadly. (Page 8)



Who called Kentucky firefighters "American heroes"? (Page 5)

Rules for a Grades 1-8 poster contest are on the back cover.



What's a pre-subsidence survey and who should get one? (Page 17)

To burn or not to burn. Read this before you start an outdoor fire. (Page 13-14)



Will you be choosing a utility company in the future? (Page 3)

## About the cover . . .

The cover photo was taken by Todd Hendricks, Division of Waste Management, in Nelson County

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Printed on recycled paper with state and federal funds

# Panel presents Air Quality Stewardship Awards

**By Rose Marie Wilmoth  
Air Rep. for Small Business**

Lt. Gov. Stephen Henry presented the first Small Business Air Quality Stewardship Awards at the Lieutenant Governor's Mansion on Sept. 21 during an awards luncheon.

The award winners and their locations are London Rotary Forms Inc., London; Wells Ready Mix Inc. and Pikeville Ready Mix Inc., West Liberty; and WireCrafters Inc., Louisville.

The Small Business Stationary Source Advisory Panel established the award in 1997 as a positive way of giving recognition to small businesses that have been proactive in reducing the impact of their operations on air quality. The panel also hoped to identify companies whose air quality stewardship practices could be implemented by other businesses.

These goals were accomplished in selecting the 1998 award winners. London Rotary Forms produces printed business forms and uses seven printing presses. These printing presses were formerly operated using highly evaporative solvent-based inks. The company has switched to soy-based inks and has reduced volatile organic compound (VOC) emissions from 2.4 tons per year (tpy) in 1990 to 0.4 tpy in 1998, an 83 percent reduction.

London Rotary Forms has also increased its recycling program by processing all recyclable materials including silver, aluminum plates, film, cardboard, plastics and paper. In his nomination, Mike Hannon, supervisor, London Regional Air Quality Office, said, "The company is committed to a clean environment as shown through their efforts and the actions they have taken to reduce emissions (voluntarily), which can be duplicated by similar printing shops." James Rynkowski accepted the award for London Rotary Forms. He thanked the panel and said, "This award belongs to all our employees."

Wells Ready Mix Inc. and Pikeville Ready Mix Inc., owned by Joe Wells, encompass 13 concrete plants in Eastern Kentucky from Ashland to Pikeville to West Liberty. Jack Hurt, supervisor, Hazard Air Quality Regional Office, who nominated the companies said, "It is hard



In the photo at left, James Rynkowski and Linda Maxey, London Rotary Forms officials, accept an award on behalf of their company. From left to right are John Trout, award committee chairman; Rynkowski; Lt. Gov. Henry; and Ms. Maxey. In the second photo, Scott Wells accepts an award on behalf of Wells Ready Mix and Pikeville Ready Mix. Left to right are Wells, Lt. Gov. Henry, and Gary Cole of the Ready Mix companies. Creative Services photos

enough to operate one plant in compliance but to operate 13 with no problems takes a very innovative individual as well as a person willing to teach employees the environmental method."

Accepting the award on behalf of the companies, Scott Wells said, "I want to commend the state and this agency (panel). This is a positive, proactive approach that is much more desirable than a negative one."

WireCrafters was the third award recipient. The privately owned company produces wire mesh restraining barriers for use in commercial trucks and vans. Its products are shipped all over the world. Adam Chambers of the Jefferson County Air Pollution Control District nominated this company because of its

proactive pollution prevention efforts.

Painting of wire mesh barriers has received much attention due to the difficulty of creating a quality job, while limiting the paint use. After a period of trial and error, WireCrafters' paint supplier found a low VOC, water-based paint that met their quality specifications. At a usage rate of about 16,000 gallons per year, this voluntary reformulation reduces the company's emissions by 41,008 lbs. per year.

A secondary benefit of the reformulation is the replacement of clean-up solvents with soapy water. The air quality stewardship practices used by this company could also be used by others. Adam Chambers accepted the award on behalf of the company.

## 'Trashgate' installed to keep debris from Lake Cumberland

Lake Cumberland State Resort Park in Russell County is one of the finest fishing and pleasure boating areas in the Eastern United States. But the natural beauty of this scenic area is severely impacted by accumulation of drift and debris at many shoreline locations.

Cleaning up this debris is the function of the new Lake Cumberland Debris Management Project, better known as the Cumberland River Trashgate.

The operation, located near Redbird in Whitley County, will collect most of the trash floating down the river before it empties into Lake Cumberland.



At the ribbon-cutting ceremony were, left to right, Darrell Ishmael, PRIDE executive director; Congressman Hal Rogers; Secretary James Bickford, Natural Resources and Environmental Protection Cabinet; and John McMichael, Kay & Kay Construction.

Cabinet photo



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## Dott is new director of State Nature Preserves

Environmental attorney Donald Dott is the new executive director of the Kentucky State Nature Preserves Commission. He was selected by the commission during its August meeting.



**Donald Dott**

He succeeds Robert McCance Jr.

Dott has worked for the Natural Resources and Environmental Protection Cabinet for 13 years. His service with the cabinet began in the Office of General Counsel dealing with surface mining and environmental protection issues. In 1990 he became supervisor of the Air and Natural Resources Section of what is now the Office of Legal Services.

Dott earned a bachelor's degree from the University of Kentucky in 1978 and a law degree from George Washington University, Washington, D.C., in 1981. He

worked for the U.S. Environmental Protection Agency as an intern for a year, clerked for a U.S. magistrate in Louisville, and was in private practice before beginning his state government service.

Dott is a Louisville native. He and his wife Linda and their four children live on their farm in Shelby County.

The Kentucky State Nature Preserves Commission was created in 1976 and consists of five members appointed by the governor. The agency is attached to the cabinet for administrative purposes.

One of the duties of the commission is securing an enduring resource of natural areas for present and future generations of Kentuckians. Since its inception, the commission has dedicated almost 12,000 acres of land into a state system of nature preserves.

The commission also conducts inventories throughout Kentucky for rare plants, animals, and high quality natural areas.

## Reeder is KRA director

Stephen Reeder, a retired state employee, was appointed by the Kentucky River Authority as its new executive director in September.

Reeder had worked at the Legislative Research Commission, the Governor's Office, and, for 20 years, in the Transportation Cabinet. In Transportation, he served in several capacities including chief deputy secretary, deputy secretary for legal affairs, general counsel, commissioner of the Department of Highways, head of Internal Audits, and chairman of the Airport Zoning Commission.

Reeder graduated from the University of Kentucky in 1965 and the UK College of Law in 1968. He lives on his farm in Anderson County.

Reeder replaces Jack Hall, who died a few days after being hired to replace Hugh Archer. Archer is the new Department for Natural Resources commissioner.

KRA's work involves oversight of Locks and Dams 5-14 and improvement of water quality and supply throughout the Kentucky River.

## Environmental scholarship students announced

Six students returned to college in September to attend classes through scholarships provided by the Kentucky Natural Resources and Environmental Protection Cabinet.

Those who have accepted the awards and their major areas of study are: Nathan Bentley, Greenup, civil engineering; Elizabeth L. Bushee, Lancaster, Ohio, biosystems and agricultural engineering; Marilyn E. Coffey, Mt. Vernon, biosystems and agricultural engineering; Brian S. Phelps, Beaver Dam, civil engineering; Jane E. Wiseman, Ashland, chemical engineering; and Richard N. Xedos, Georgetown, geology.

This is the eighth year for the scholarship program that was instituted to find candidates for critical environmental job classifications in the cabinet. The scholarships cover the approximate cost of tuition, room and board, books and fees. Recipients of awards must become enrolled in one of Kentucky's public universities as at least a junior in their first scholarship-supported semester. They are also expected to accept employment with the cabinet upon graduation.

In the past, scholarship students have attended several different Kentucky colleges, but in an unusual turn of events, all six of this year's recipients are attending UK. Elizabeth Bushee and Marilyn Coffey are master's degree candidates; the other four students are in bachelor's degree programs.

The Kentucky Water Resources Research Institute, with programs across the state, and the University of Kentucky Research Foundation administer the scholarship program with the cabinet. Persons who are interested in applying

must file an application with the institute by Feb. 15 to be considered for funding in the following fall semester.

For further information about the program, contact the institute at (606) 257-1299 or Glenda Abrams, Kentucky Department for Environmental Protection, 14 Reilly Road, Frankfort, KY 40601, telephone (502) 564-2150.

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*U.S. EPA has a career information site at <http://www.epa.gov/students/careers.htm>*



**Scholarship students with Robert Logan, commissioner, Department for Environmental Protection, left, and James E. Bickford, Natural Resources and Environmental Protection Cabinet secretary, right, are, from left to right, Brian Scott Phelps, Marilyn E. Coffey, and Nathan M. Bentley. Students not pictured are Elizabeth L. Bushee, Jane E. Wiseman, and Richard N. Xedos.** Creative Services photo

# *Choosing a utility company could be in your future*



**By Karen Landry  
Division of Energy**

Do you like what happened with your telephone service after deregulation? Perhaps one day, we will be given the same choice with our electricity and natural gas service. It's an issue being studied and debated across the country.

The electric utility industry is one of the largest remaining monopolies in the United States. You may have heard the term electricity deregulation, and it's likely you've wondered exactly what does that mean, and more important, how will this affect my electric rates?

First, the more correct term is electricity restructuring, and second, there is no clear answer as to how restructuring will affect utility rates. Restructuring in this case means transforming certain functions of the electric utility industry to a competitive market.

The driving force for restructuring is the wide disparity of prices throughout the country. Everyone wants access to cheaper electricity. Making this possible are today's economic conditions and advances in the technology used to provide electricity. These changes have opened the possibility of competition, and therefore customer choice, in the generation of electricity. Customer choice means the consumer will be allowed to select from several suppliers of electricity similar to telephone service today.

Currently, electricity regulation is carried out at the state level by a public service commission that controls local distribution and retail sales. The federal government has jurisdiction over the interstate transmission and wholesale distribution of electricity. The wholesale markets have already been restructured. In parts of the nation, efforts are underway to

restructure the retail sales at the state level. Many states have already enacted legislation to open their electric utility industry to retail competition, allowing customer choice. Of the states promoting retail competition, most, such as California and states in the Northeast, have relatively high electricity rates.

The federal government also is involved in this movement to create a competitive electric utility market. In March 1998, the Clinton Administration sent Congress its plan, the Comprehensive Electricity Competition Act, for restructuring the electric power industry. The administration says the plan will save consumers \$20 billion a year on electricity bills and will also provide environmental benefits through energy efficiency and renewable energy policies.

Under the provisions of the act, all electric consumers would be able to choose their electricity supplier by Jan. 1, 2003, but a state may opt out of retail competition if it believes its consumers would be better off under its existing structure or with an alternative state-crafted plan. Congress has not yet acted on this bill. In addition, there are several other proposals under consideration in Congress.

Kentuckians currently enjoy some of the lowest electric rates in the nation. The average electric rate (for industrial, commercial, and residential sectors) in Kentucky in 1997 was 4.1 cents per kilowatt-hour compared to the national average of 6.88 cents per kilowatt-hour. Kentucky is second only to Idaho among the states with the lowest electricity rates in the country.

Our state wants to ensure that residents and businesses continue to reap the benefits of low rates. One question

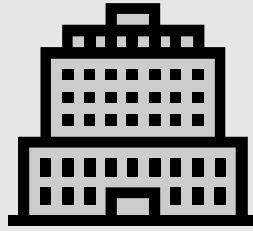
everyone has is whether Kentuckians would pay more for electricity in a restructured market?

Results of studies completed at the University of Kentucky have differed on this issue of how rates would be affected. Other equally important concerns include continued electricity reliability, equitable distribution of benefits among all ratepayers, and incentives to promote energy efficiency and renewable energy. In Kentucky, the Public Service Commission's "Principles and Guidelines on the Restructuring of the Electric Industry" address these concerns. (Visit the Public Service Commission web site at <http://www.psc.state.ky.us/>)

In response to the changes occurring elsewhere and to address the concerns regarding Kentucky's own electric utility industry, the 1998 Kentucky General Assembly enacted House Bill 95 creating a 20-member Electric Utility Industry Restructuring Task Force consisting of state legislators and state agency representatives. Gov. Paul E. Patton appointed Natural Resources and Environmental Protection Cabinet Secretary James Bickford and Division of Energy Director John Stapleton to serve on the task force. The task force will meet monthly for the next year and report its findings and recommendations to the governor in November 1999.

In the meantime, if you are interested in learning more about electric utility restructuring, visit the following web site: U.S. Department of Energy, Comprehensive Electricity Competition Act <http://www.doe.gov/ceca/ceca.htm> or call the Kentucky Division of Energy at (800) 282-0868. The division web site is <http://www.state.ky.us/agencies/nrepc/dnr/energy/dnrdoe.html>

# Measures promote lower energy costs for state buildings



**By Karen Landry  
Division of Energy**

As a citizen of Kentucky, have you ever given any thought to how much money is spent on energy costs to operate our government buildings? If not, consider that the state spends more than \$53 million a year on energy. That's \$53 million to heat and cool buildings, run equipment, and provide lighting. This amount is considerably more when we include local government energy costs.

Kentucky's citizens could all benefit if those costs were reduced. Significant energy savings can be realized through simple measures--turning off equipment that is not in use, lighting only occupied rooms, adjusting thermostats, and so on. Other energy saving measures involve changes to building and mechanical systems to make them operate more efficiently. These changes often have significant initial costs because older, less efficient systems need to be replaced or upgraded. So while the energy savings will provide a quick payback on the initial investment cost, many government agencies are strapped for funding and cannot afford to make this initial investment.

Recognizing the benefits of energy efficiency, the Kentucky General Assembly has enacted three bills, House Bill 639 (1998), HB-264 (1996), and Senate Bill 157 (1996), which establish the basis for energy efficiency in state and local government buildings. With this enabling legislation, Kentucky's city, county, and state government agencies, including schools and hospitals, can hope to realize significant savings on their energy costs, as much as 25 percent (see related article in the Fall 1997 *Land, Air, and Water*). The energy savings will result from upgrades to existing buildings through such measures as installation of efficient energy-consuming equipment and lighting, and other low-cost/no-cost changes.

A key component of the legislation is that these bills authorize, but do not require, energy savings performance contracting, which can include private sector financing to fund energy efficiency projects. Energy savings performance contracting (ESPC) is a viable way for government to save energy and money by securing private sector expertise and financing of energy-efficiency improvement projects through the savings these projects are guaranteed to produce.

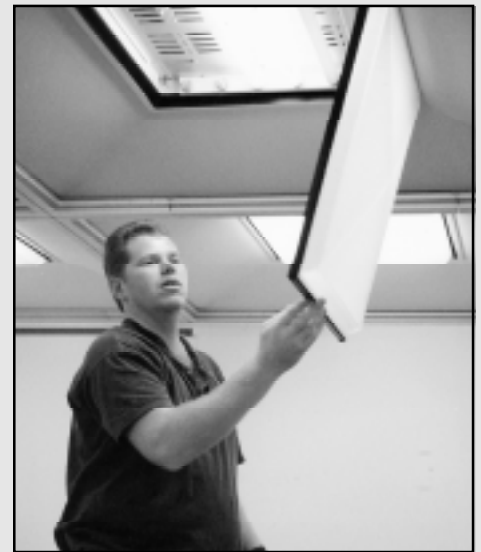
Performance contracting allows institutions to:

- make building improvements when capital dollars are not available;
- update aging equipment with newer, more efficient products;
- reduce utility costs without sacrificing service; and
- reduce maintenance and operational costs.

In other words, energy savings performance contracting allows an agency to make the necessary energy efficiency improvements, without having to make the initial investment in cost.

The U.S. Department of Energy's Oak Ridge National Laboratory has experience with energy savings performance contracting, and the Kentucky Division of Energy has enlisted its help in training city, county, and state government officials on the strategies necessary to negotiate successful contracts. Statewide ESPC workshops were conducted last year, and another workshop is scheduled for this year.

In addition to the workshops, the division is planning public outreach activities and training of building operators to meet the goals of the energy efficiency in government buildings program. Clearly, the efforts to reduce energy costs will require the commitment of many people throughout



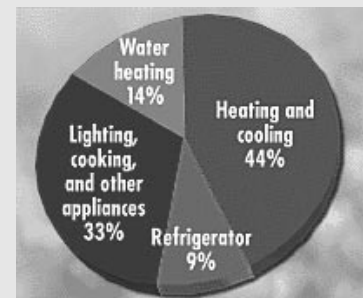
**Changing fluorescent bulbs in the Capital Plaza Tower in Frankfort is part of the daily routine for Donald Moore, a state Department of Finance employee.**  
Cabinet photo

government agencies; however, with such significant potential benefits, what have we to lose?

For more information on the energy efficiency program for government buildings and energy savings performance contracting, contact the Kentucky Division of Energy at (800) 282-0868.

## **Energy Savers booklet available**

Did you know that the typical U.S. family spends close to \$1,300 a year on home utility bills? By using a few inexpensive energy-efficient measures, you can reduce your energy bills by 10 to 50 percent. The U.S. Department of Energy has put together "Energy Savers," a booklet of tips on how to save energy dollars. You can view the booklet online at [http://www.eren.doe.gov/consumer info/energy\\_savers](http://www.eren.doe.gov/consumer info/energy_savers) or get a copy by calling the Kentucky Division of Energy at (800) 282-0868.



**How we use energy in our homes**



Top photo, Owen “Kayo” Maddox of Madisonville. Right, Bob Winters of Graham. Photos submitted by Kayo Maddox



# American heroes

## *Kentucky firefighters battle Florida blaze*

By Gwen Holt  
Division of Forestry

The residents of fire-ravaged Florida will not forget the summer of 1998. Nor will it be forgotten by the Kentucky Division of Forestry employees dispatched to help. Kentucky is one of 13 states that make up the Southeastern States Forest Fire Compact Commission. The role of the commission is to dispatch firefighters to member states when needed. If Kentucky experiences a bad forest fire season, then firefighters from member states would be sent here to help.

The first group of division firefighters was dispatched on June 16. Each crew spent a maximum of 21 days on fire detail. Replacement crews were sent to relieve them. The crews endured long hours, exhaustive work, and sometimes less than desirable sleeping quarters. Overall, most of the firefighters agreed that the Florida fires were the worst they had battled.

President Clinton, in a national address, referred to the firefighters in Florida as American heroes. Florida residents thought they were heroes also. They showed their appreciation in many ways. Some would bring the firefighters food and Gatorade; others brought eye drops for their smoke-reddened eyes and new boots to replace those damaged by fire. Many just held signs saying, “Thank you.”

These same firefighters along with the others in the Kentucky Division of Forestry are **Kentucky heroes** daily. They are on call and ready to respond to fires in a moment’s notice. They battle fires from the very steep terrain in Eastern Kentucky to the flatlands in the western end of the state. They put their lives on the line to save Kentucky lives, property, and our treasured forest resources every time a fire erupts in the counties they serve.

State Rep. Paul Mason sent each Kentucky Division of Forestry firefighter a letter thanking them for their heroic efforts in Florida. He also sent them a Legislative Citation from the Kentucky House of Representatives recognizing them as outstanding citizens.

Soon after the firefighters returned from Florida, the division received a request for help from the state of Texas, which was experiencing severe drought conditions and record temperatures. Six division firefighters were dispatched to Texas. The names and hometowns of each of the division’s firefighters who helped during the fire emergencies in Florida and Texas are listed here.



### Cabinet firefighters & their hometowns

Bernard Andersen, Frankfort  
Bob Winters, Graham  
Brian Yager, Elizabethtown  
Bruce Hill, Gilley  
Byron Bland, Morehead  
Carl Anthony Carter, Williamstown  
Chad Brothers, Irvine  
Charles Saunders, Morehead  
David Stafford, Vanceburg  
DeWayne Anderson, Morehead  
Douglas Blair, Madisonville  
Dwight Blevins, Grayson  
Gary Grant, Coldiron  
Gery Skees, Elizabethtown  
Herman Slone, Garner  
James Heady, Aberdeen  
James Justice, Farmers  
James Madden, Viper  
James Workman, Oil Springs  
James Wright, Lexington  
Jason Riggins, Hyden  
Jeffery Hall, Mozelle  
Jeffery Smith, Prestonsburg  
Joe Welch, Hazard  
Johnny Ray Upton, Smith’s Grove  
Kent Slusher, Lancaster  
Marna Smith, Jackson  
Matthew Richey, Middlesboro  
Mike Hale, Rush  
Orlance Johnson, Middlesboro  
Owen Maddox, Madisonville  
Pete Rayburn, London  
Robert Scott Quinn, Sturgis  
Samuel Allen, Shepherdsville  
Samuel Caudill, Salyersville  
Sandra Kelley, Utica  
Stuart Ross Glenn, Jeff  
Chuck Wilburn, Ashland  
Jack Estep, Loyall  
Lonnie Gibson, Munfordville  
Glen Smith, Crab Orchard



# Land News



## Kentucky participates in second annual America Recycles Day

Kentucky joined the nation in celebrating the second annual America Recycles Day on Sunday, Nov. 15. The Natural Resources and Environmental Protection Cabinet and a statewide planning committee coordinated events and activities throughout the state.

The theme for this year's events was "If you're not buying recycled, you're not really recycling." Most of the events this year focused on "closing the loop" on the cycle, or buying recycled-content products to ensure that there will be products for the materials our communities are recycling.

Kentuckians making a pledge to increase their purchases of recycled-content products were entered in the national contest to win the American Green Dream House – a home made from primarily recycled materials to be built anywhere in the continental United States. People under 18 had the chance to win a family trip to Disney World. For a review of America Recycles Day and tips on buying recycled products, log on to <http://www.americarecyclesday.org>.

## Public welcome at container deposit task force meetings



The Special Task Force on Container Deposit, formed as a result of an unsuccessful effort to enact a "bottle bill" during the 1998 General Assembly, began

its two-year series of monthly meetings Sept. 2.

The 23-member group is studying ways to encourage recycling and reduce litter in the commonwealth.

House Majority Leader Greg Stumbo, D-Prestonsburg, who sponsored the legislation that called for the study, is chairman of the task force. Stumbo's original intention was to enact a bill requiring consumers to pay a 5- to 10-cent deposit on all beverage cans and bottles sold in Kentucky. At each county's recycling center, consumers would be reimbursed that money when they returned their containers.

The bill was met with opposition from the beverage industry and was rewritten to form the task force.

Joy Morgan, Resource Conservation and Local Assistance branch manager in the Division of Waste Management, represents the Natural Resources and

Environmental Protection Cabinet on the committee.

Morgan said timing is one of the biggest advantages the group has in coming to a solution. "This administration has placed a lot of emphasis on cleaning up Kentucky," she said.

The group will spend its first few meetings gathering facts and sharing input about the litter problem in Kentucky, how other states are dealing with their litter and

how a container deposit would affect grocers, retailers and the public.

"There's a real openness in the group," Morgan said. "We're trying to get information from all sides."

The task force must submit its report to the legislature by September 1999. Meetings are the first Wednesday of each month in Room 149 of the Capital Annex in Frankfort. The public is invited.



Casey County Middle School students who recently helped clean an open dump on Rayborn Hill were recognized by the Kentucky Department for Environmental Protection. Presenting the students with a certificate, which will hang in their school, were Casey County Field Inspector Todd Clemmons, back row, sixth from left, and Division of Waste Management Field Inspector Steve Wesley. Teachers Karin Weddle and Lydia Coffey, who helped coordinate the effort, are to the right of Wesley. Casey County News photo



Steve Wesley, left, a field inspector in the Columbia Regional Office, recently presented a PRIDE (Personal Responsibility In a Desirable Environment) plaque to Casey County Middle School teacher Karin Weddle in recognition of the outstanding service and leadership shown by the middle school students who helped clean a county dump and initiated a recycling program. Casey County News photo

# Miles & miles of files

## *UST Branch completes prep work for imaging system*



**Rick Saylor, left, with the Underground Storage Tank Branch, and Debra Grider, Enforcement Branch, demonstrate a new scanner, part of UST's new imaging system.** Photo by Anya Armes Weber

**By Anya Armes Weber**

### **Division of Waste Management**

The Underground Storage Tank Branch recently completed a 14-week file preparation project for its upcoming imaging system.

Branch personnel opened nearly 12,000 UST files and identified and coded each document in those files. Each document had all of its binders and staples removed and was physically prepared for scanning. The prep work was at times very tiring, the staff reports, but it was a crucial first step in the conversion.

The system will allow reviewers to access and view any UST facility file with the click of a mouse button. Other information, such as tank owner addresses, tank status and exact geographic position can be recalled with similar ease.

Because of the effort invested in this project, the UST files are in the best shape they ever have been. All of the pages are flat and wrinkle free, all of the documents are grouped together in a logical manner, and all of the files are free of space-wasting duplicate material.

Some interesting facts and figures about the work performed include the following:

- Let's say that each UST file is  $\frac{3}{4}$  of an inch thick (a conservative estimate). If

every file that was prepped was stacked up like books end to end, the line would stretch almost 2.5 football fields.

- If all those files were laid flat end to end, that line would stretch 2 miles.

- If each file weighs about 1 lb., that would mean that almost 6 tons of files were prepped.

- Each file had 20 staples in it. Then almost a quarter of a million staples were pulled.

- The UST Branch spent 73.5 working days in that room together (March 16 through June 19 minus weekends, Memorial Day and half a day on Election Day). That equals 551 working hours per person, on average.

- On the average day, we had three paper cuts, four staple puncture wounds, and two fits of temper.

- At least 12 large recycling carts full of unwanted and unneeded paper were removed from the files. If each full cart weighs an average of 500 pounds, then, almost 3 **tons** of paper were recycled. If each cart can hold 30 cubic feet of paper, then we recycled 360 cubic feet of paper. That is a lot of trees!

- 100,000 sheets of colored paper were probably added to the files and used as document separator pages.



- Almost 12,000 large rubber bands were used.

- 36 cubic feet of plastic spiral document binders were removed and await recycling.

The imaging work isn't the only thing keeping UST staff busy. The federal UST upgrade deadline is Dec. 22, and branch employees, as well as field inspectors, have been helping tank owners and operators learn what they must do to comply with the nationwide standards.

All tank systems must have spill, overflow and corrosion protection, plus proper piping and release detection by the deadline. The U.S. Environmental Protection Agency issued these steps in 1988 to help prevent overflow and leakage from UST systems. Tank operators who need assistance or have questions can call the Division of Waste Management at (502) 564-6716.

**Buy Recycled**  
It's as good as new

Products made with recycled materials are popping up all over the place. Those recycled plastic grocery bags come back as all kinds of good things like landscaping timbers or carpet or playground equipment.

When you buy... make sure to buy recycled... it's good for the environment... and it's as good as new.

**Kentucky Buy Recycled Alliance**

Organized by Environmental Protection

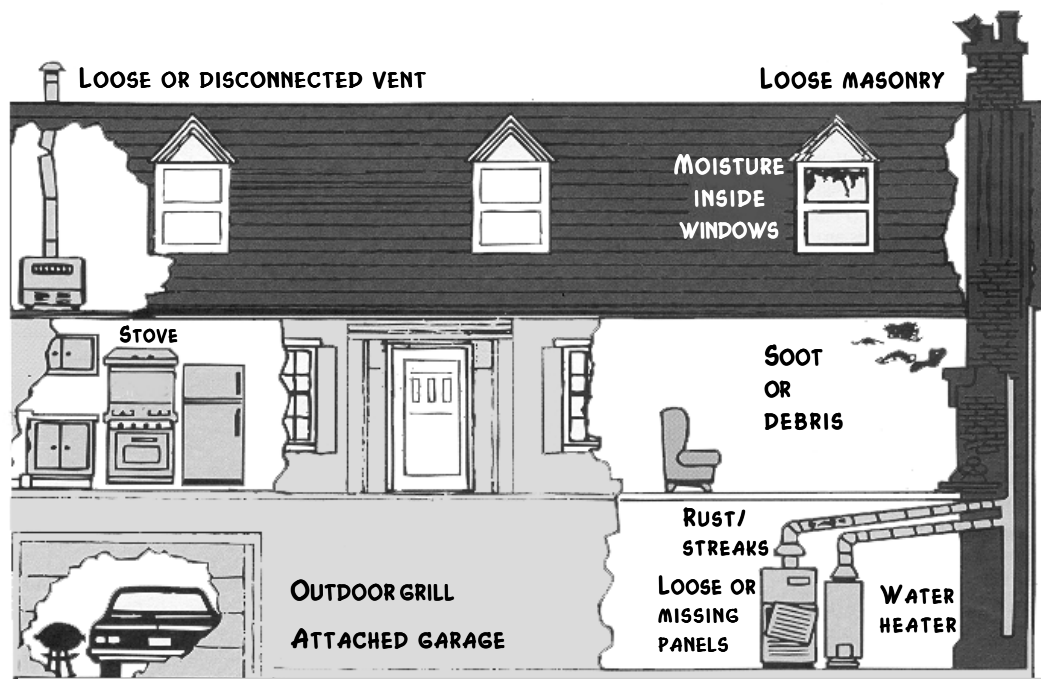
Division of Waste Management

1500 E. 10th St.

Franklin, Kentucky 40001

(502) 564-6716 fax (502) 564-4049

# WHAT'S WRONG WITH THIS PICTURE?



Can you spot the carbon monoxide danger zones in this house? Here are some clues:

1. Carbon monoxide is a gas created when any fuel is burned.
2. If CO doesn't have a way of escaping through a chimney or vent, it can build up to a deadly level.

So where are the danger zones?

There are several fuel-burning items in the house that do not have a clear airway to the outside. The fireplace, basement furnace and water heater vent to a blocked chimney. The upstairs heater has a loose vent. There is an outdoor grill and a car in a closed garage.

Locate all the CO sources in your home, then go over these questions with a group:

• **Are all fuel-burning appliances — central heating systems, fireplaces and water heaters — properly installed? Do these appliances get an “annual checkup” by a trained service technician?** In this picture there are several clues that heating units aren't working properly, for example, soot from the fireplace and moisture inside a window. But often appliances have internal malfunctions, improper burner adjustment or chimney blockage or damage that only a professional can spot.

• **Do you read and follow directions before using space heaters and kerosene heaters?** If you cannot avoid using an unvented gas or kerosene space heater, carefully follow the cautions that come

with the device. Open a window to ensure enough air for ventilation and proper fuel-burning. Consider purchasing a vented space heater when replacing an unvented one. Use proper fuel in kerosene space heaters. (A fire safety tip: fill kerosene heaters outside.)

• **Do you ever use an outdoor grill or hibachi inside the house for cooking or heating?** Never burn charcoal indoors or in a garage.

• **Do you use a cooking stove as a heater?** Never use the range or oven for heating.

• **Do you ever warm up the car in the garage?** NEVER idle a vehicle up in a closed garage, especially if the garage is attached to the house. This can fill the house with CO and kill everyone inside.

• **Do you ever use gasoline-powered engines or tools inside buildings or in partially enclosed areas?** Never do this unless gasoline engines can be located outside and away from air intakes. That includes, for example, high-pressure washers, concrete cutting saws, floor buffers, and welders.

• **Do you know the symptoms of CO poisoning?** Carbon monoxide poisoning can kill you. The initial symptoms of CO are similar to the flu (but without the fever). They include dizziness, fatigue, headache, nausea and irregular breathing.

Remember, if you have any of these symptoms and if you feel better when you go outside your home and the symptoms reappear once you're back inside, you

may have CO poisoning. If you experience symptoms that you think could be from CO poisoning:

- ✓ **GET FRESH AIR IMMEDIATELY.** Open doors and windows, turn off combustion appliances and leave the house.
- ✓ **GO TO AN EMERGENCY ROOM** and tell the physician you suspect CO poisoning. If CO poisoning has occurred, it can often be diagnosed by a blood test done soon after exposure.

CO is invisible. You can't see it, taste or smell it. You can be rendered helpless by CO before you even know something is wrong. So it's important to follow safety rules.

It's also a good idea to have a carbon monoxide monitor in your home in addition to smoke detectors. Ask your local librarian to help you research consumer magazines for information on the best monitor to buy.

You can get more information on indoor air quality by contacting Monica Hale Kehrt at the Kentucky Division for Air Quality, 803 Schenkel Lane, Frankfort, KY 40601; phone (502) 573-3382. In addition, the U.S. Environmental Protection Agency has an Indoor Air Home Page at <http://www.epa.gov/iaq/>

# 'TIS THE SEASON TO RECYCLE

*There are lots of reasons and seasons to celebrate and give gifts. Sometimes people have a party or give a present just for the fun of it! Remember the very merry unbirthday in Disney's version of Alice in Wonderland?*

*By using a little imagination, you can avoid going out and buying more "stuff" on gift-giving occasions. 'Tis the season to recycle!*

*Here are some ideas that are kind to the environment:*



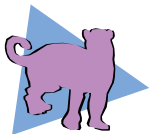
fine. Or roll up that bubble bath in a thick terry towel and tie each end with a cloth ribbon. Be creative.

- Decorate with delight. Ask your children to make garlands and wreaths from leftover construction paper, wild berries, fruits and nuts. Craft homemade centerpieces from boughs and pinecones gathered in your yard. Brighten up doors and hallways with holiday greeting cards. Trade decorations with friends to add a "new" flair to your home without having to buy new products.

- Buy greeting cards from a nonprofit organization. In many cases, a part of the purchase price can be deducted as a contribution to the organization. Or eliminate buying greeting cards all together by cutting the backs off saved cards and mailing the fronts as recycled "postcards."

- Replace throwaway plates, cups, silverware and napkins with durable goods you can use season after season.

## GREEN GIFT IDEAS



- Give adopt-a-wild-animal papers. Several groups let you sponsor an endangered animal.

- Donate to a friend's favorite charity. Pet lovers will appreciate a donation to your local humane society.

- Give tickets to sporting events and movie passes; certificates for haircuts and manicures.

- Refill last year's cookie tins, baskets and festive food containers with homebaked goodies.



- Be a library buddy. Commit to taking a young friend to the library.

- Make certificates for personal services, such as a home-cooked meal or a reliable babysitter.

- Give plants instead of cut flowers.

- Give durable – not single-use – gifts.

- Create a memory scrapbook. Ask friends and family to help.



- Take old T-shirts and cut the logo or image from the front and make pieces for a special quilt or sew the openings of the shirt to make a pillow.

## HOW TO MAKE A BOX FROM A GREETING CARD



**Your finished box will look just like a store-bought one – only better.** Photo by Anya Armes Weber

A homemade gift really can mean a lot to its recipient. But even if you're not crafty, here's something you can make that's sure to delight during the holidays: a gift box made from a greeting card.

Pick a card, any card, but one with a thick border works best. Here are the steps to transforming it into a box.

- Cut card into two pieces at its crease.
- Place front half of card face down and back half of card on top with greeting side up.
- Measure and lightly mark fold lines that correspond with the card's border -  $\frac{3}{4}$  inches or more is recommended.
- Fold edges on all four sides, keeping the two halves together, and clip the two vertical markings around each corner.
- Separate two halves.
- On the back of the card, fold the ends up along the fold lines with flaps folded inside. Keep the folds straight and make sharp creases for a neater-looking box.
- Fold sides up along folds and secure corners with tape or glue.
- Repeat last two steps for front of card. Use the bottom of the box as a form for the top. It will ensure a better fit.
- Give a gift in your homemade box!

*Information compiled by Anya Armes Weber  
Layout by Cindy Schafer*





## 10 WAYS TO LOVE A TREE

1. Select a tree with four-season appeal.
2. Match the plant with the site.
3. Buy healthy, quality plants.
4. Dig wide planting holes, but no deeper than the rootball.
5. Remove synthetic burlap, twine, etc.
6. Mulch & keep mowers away from the trunk.
7. Water during dry weather.
8. Inspect often for diseases and insects.
9. Avoid trenching and adding fill soil.
10. Practice natural target pruning.



## 10 WAYS TO KILL A TREE

1. Plant large trees in small spaces.
2. Choose a tree just for its flowers.
3. Buy the cheapest plant.
4. Dig a small planting hole.
5. Plant it too deep.
6. Water every day.
7. Pile mulch around the trunk.
8. Add fill soil over roots.
9. Top it.
10. Make flush pruning cuts.

### Grow your own!

*"The most satisfying way to raise saplings is to grow them from seed yourself, although this also takes the most time. Collect different types of freshly fallen seeds in autumn and winter. Sow them in pots filled with moist compost, and wait for the spring. Some (like oak and beech) may germinate straight away, whilst others (like ash) won't germinate until a year later."* **Usborne Science & Experiments: Ecology**



## Helping trees through the *chill* of winter

By Diana Olszowy  
Division of Forestry

The tree-filled landscapes of winter can be mistakenly thought to be asleep. In the winter, trees are not sleeping but are simply dormant — truly counting the days until spring.

Winter is a difficult time for trees. Trees must battle many harsh conditions that winter generates. The tree's root system stores nutrients and food for the coming needs of spring. Water continues to move through the tree until it freezes.

What can you do to help your valuable trees? Below are a few simple things that can be done to help your trees survive the winter and thrive in spring. These small winter investments can pay off in a large way, yielding healthy and structurally sound trees for you and your family to enjoy for many years to come.

### Six critical things to do for your trees this winter



Add a thin layer of composted organic mulch that blankets the soil surface. *A two- to three-inch layer of mulch will protect and conserve tree resources.*



Properly wrap new trees that have not developed a corky bark and could easily be damaged. *Mechanical injury from the environment, including chewing and rubbing by animals and frost cracks from cold winter winds, must be prevented.*



Remove or correct clearly visible structural faults and deadwood. *Try to make small pruning cuts that minimize the exposure of the central heartwood core of branches.*



Limit greenwood pruning of declining and poorly placed branches. *Pruning should conserve as many living branches as possible.*



Fertilize with needed elements in small quantities. *Essential elements added over a mulch layer will help provide a healthy soil environment for root growth. A soil test can help determine needed elements and minerals.*



Water when soils and trees are cool but not frozen and when there has been little precipitation. *Droughts are common during winter because water is in the form of snow and ice and is unavailable to the tree. Tree roots will continue to uptake water until the ground freezes, so remember to provide at least one inch of water per week for your tree.*

Invest in great trees by helping them over a difficult time. For trees, wonderful springs come from well-tended winters. Seek advice from qualified professionals for the life of your trees. For more information on tree care and other forestry issues, contact the Kentucky Division of Forestry at (502) 564-4496 or visit the division's web site at <http://www.state.ky.us/agencies/nrepc/dnr/forestry/dnrdor.html>.

### Caring for animals in cold weather



Don't forget our animal friends. The National Wildlife Federation has tips at <http://www.nwf.org/natlwild/backfm7.html> Continue feeding wildlife and give them water that's not frozen. How do wild creatures keep warm? Go to this NWF page to find out: <http://www.nwf.org/rick/warm1.html> For "Cold Weather Pet Tips," go

to the American Society for Prevention of Cruelty to Animals at <http://www.aspca.org/petcare/catcold.htm> Some advice: It's best to keep pets inside. Outside pets need extra food and warm safe shelter. Bang on your car hood before starting the engine! There may be a sleeping cat under your "bonnet." Clean up poisonous antifreeze. Wipe ice and salt off doggy paws. For plans for a warm dog house, go to <http://www.hsus.org/doghouse.html>



*Geologically Speaking*

## Bats & blind fish? Oh my!

By Charles Oldham, PG

What images do these words conjure up? Caves, bats, lost rivers, blind fish - perhaps dark tunnels, dripping water, cool air, and a sense of mystery, and adventure. But, how do the words sinkholes, drinking water, sewage and water pollution fit into this picture?

Prior to 1989, the Horse Cave area had all of the above. Horse Cave, first developed as a tourist attraction, lost much of its tourist appeal by the late 1950s. Between the years of 1943 to 1989, the natural caverns were grossly polluted by sewage. The once pristine caves which at one time contained large populations of blind cave fish, salamanders, newts and cave crickets, were virtually void of life. Cave entrances and sinkholes reeked noxious gases and spewed forth polluted water. The Horse Cave area became known as a textbook example of groundwater pollution.

The American Cave Conservation Association, in cooperation with the city of Horse Cave, formed a partnership to save the caverns and the groundwater resources of the area. By 1989 the Caveland Sanitation Authority developed a regional sewage system that eliminated most of the sewage entering the underground caverns.

### Education is pollution solution

By 1992 the populations of rare eyeless cave fish were on the road to recovery. And the odor of raw sewage was abating from the cave and sinkhole entrances.

While the sewer systems greatly improved one problem, other pollution sources required alternative methods.

One of the most effective methods employed was educating the public and industry on how a karst system works. When farmers and industry became aware that dumping into sinkholes would pollute their wells and or the wells of their neighbors, they began to look to other means of waste disposal.

In karst areas the surface water and groundwater systems are directly connected. As rainfall strikes the surface of the earth, the runoff (water not directly

absorbed by the soil and vegetation) collects in small streams and enters the groundwater system by way of sinkholes or "sinks". The sinkholes are roof collapse structures associated with underground solution channels or open cave passages. Wells driven into the limestones of the karst area are recharged with water associated with the caves. Therefore, if you throw a dead animal, trash or garbage into a sinkhole, you or your neighbor may be drinking tainted or polluted water.

### The one and only

In 1993 the American Cave Museum was opened to the public. Unlike the commercial caves of the area geared toward entertainment, the American Cave Museum and the associated Hidden River Cave's primary goal is to provide educational opportunities. The American Cave and Karst Center is unique in the respect that it is the only facility of its kind in existence.

According to a museum brochure, *The American Cave Museum is the only museum in the United States devoted to caves, groundwater, and environmental issues in karst areas. Current exhibits demonstrate groundwater science, local cave history, cave biology, and karst geology. Hidden River Cave is located next door to the museum and is accessed through a large sinkhole on Main Street in downtown Horse Cave! The Hidden River is an underground stream that flows at the base of the cave and is the home to numerous types of cave wildlife rarely seen in many other commercial caves.*

The center's buildings and land are owned by the city of Horse Cave. The American Cave Conservation Association manages the center.

*The American Cave Conservation Association (ACCA) is a nonprofit organization formed in 1977 for the purpose of protecting caves and karstlands. ACCA is committed to developing public education programs and professional services which promote land use planning and proper stewardship of underground natural resources.*

Currently the center is engaged in a nonpoint source study of the karst regions of Kentucky. The American Cave Conservation Association in cooperation with the cabinet's Kentucky Division of Water and the U.S. Geological Survey sponsors this study.

This study will look into problems associated with septic tanks, logging, oil and gas production, highway construction and acid mine drainage into karst aquifers.

### Read all about it!

The center currently has a computerized file of more than 3,000 biology and earth science teachers in Kentucky, Southern Indiana and Tennessee. Copies of school newspapers are mailed each semester to each teacher on the list, along with information about the museum and teacher information sheets.

The four-page school newspaper focuses upon protecting caves and karst groundwater systems. The paper is distributed each semester (twice a year) to 50,000 school children statewide.

A variety of programs is available to schools and groups:

The Hidden River Cave Eco-Tour - a beginner's caving adventure that takes students 150 feet underground to explore off the beaten path!

People and Kentucky Caves - discover how ancient Native Americans and early settlers utilized caves. Hear the Floyd Collins Story. Build a modern day community on a karst landscape in the Secret Sink Activity.

Karst Geology - designed to give students a hands-on introduction to earth science in karst areas. Includes Introduction to Geology, a hands-on activity that teaches how the earth affects everyone; Fossil Identification, learning about common fossils and participation in a "fossil dig;" and Water Works, an Underground Classroom activity that teaches students to measure and monitor groundwater quality in Hidden River.

Cave Creatures - an activity to teach younger students about cave wildlife. *Batty Bats* is a fun activity that teaches students about what bats eat, where they live and how they "see" in the dark. *Creepy Cave Animals* shows students close up examples, and how to identify common types. The Adventure Tour takes students underground to search for examples of the animals they just learned about.

For additional information, contact ACCA, P.O. Box 409, Horse Cave, KY 42749. Telephone (502) 786-1466; fax (502) 786-1467 or check out the website at <http://www.cavern.org/>



# Air News



## U. S. EPA orders emission reductions

On Sept. 24, the U.S. Environmental Protection Agency announced that large emission reductions will have to be achieved from utilities and other large boilers in 22 states including Kentucky.

Referred to as the NO<sub>x</sub> SIP (state implementation plan) call, the order directs Kentucky to reduce emissions of oxides of nitrogen by May 2003. A cap on NO<sub>x</sub> emissions has been imposed during the summer months beginning in 2003.

To achieve these reductions, expensive pollution control equipment will have to be installed on many facilities across the state, with utilities being the main target.

EPA stated that these reductions are necessary to reduce the ozone formation in the Eastern United States. (See Page 16.) EPA has projected that many areas will be able to meet the new eight-hour ozone standard after these emission reductions are achieved. The Kentucky Division for Air Quality is reviewing the EPA mandate to evaluate what would be necessary to comply with the federal rules.

## Asbestos rules changed

The Division for Air Quality amended two asbestos regulations effective July 7, 1998, to reflect new federal

requirements.

One regulation, 401 Kentucky Administrative Regulation 58:005, pertains to accreditation of asbestos professionals. This regulation originally required only school asbestos professionals to be division-accredited. The revisions extend these requirements beyond schools to public and commercial buildings as required at the federal level. Additionally, standards for asbestos training courses have been upgraded.

The second regulation, 401 KAR 58:025, sets standards for controlling asbestos emissions from various sources including renovations, demolitions, and landfills. The revisions clarify requirements for these sources, require asbestos removals to be overseen by trained professionals, and add provisions for tracking asbestos wastes from their point of origin to the landfill.

Questions regarding these regulations should be addressed to the nearest Division for Air Quality regional office, or to the Special Programs Branch in Frankfort, (502) 573-3382.

## 'Risk plan' required

Many facilities handle substances that could pose a risk to the surrounding community if an accident were to occur. As of June 21, 1999, a new accident-prevention rule from the U.S. Environmental Protection Agency (EPA) will require facilities that use these

substances to develop a "risk management program" for preventing accidental releases responding to any that might occur.

The state Division for Air Quality is proposing a similar regulation that will enable Kentucky facilities to have their risk-management programs approved by the state agency rather than EPA. The division expects the state regulation to be adopted by January 1999, with the June 21 deadline included.

To comply, facilities will need to develop a risk management program and then prepare and submit a

written summary of it (a "Risk Management Plan" or RMP) to EPA's RMP Reporting Center by the June 21 deadline. This plan will be made available to state and local government agencies, community officials, and the public to promote awareness of chemical hazards and to identify the precautions that are being taken to control them.

For more information on RMPs, call the division's Special Programs Branch at (502) 573-3382 or the Business and Environmental Assistance Program (BEAP) at (800) 562-2327.



East Kentucky Power's Louis Petrey and Division for Air Quality's Glenda Riggs get a bird's eye view of the facility grounds adjacent to the Ohio River. Photo by Jim Daniel

## DAQ staff gets view from the top

Enforcement Branch staff with the Division for Air Quality recently toured East Kentucky Power's Spurlock station near Maysville. The visit was to familiarize the staff with the operation of a coal-fired electricity generating station and its air emissions monitoring system.

Nathan Morgan, with the division's Technical Services Branch, escorted the visitors due to his extensive knowledge of the facility and the monitoring system.

Company personnel were very accommodating and led the DAQ people on an insightful and exciting guided tour, said John Lyons, Enforcement Branch manager. All areas of the facility pertaining to air quality were viewed including a perspective from the top of one of its 800-foot stacks. When inspecting and calibrating monitoring equipment, Morgan must go up to the 300-foot level to complete his task.

Some of the jobs in Air Quality require going way above the call of duty.



By Mark Ritter  
Division for Air Quality

The Natural Resources and Environmental Protection Cabinet has been educating the public about open burning regulations for several years.

Cabinet staff held seminars throughout the state so elected officials, community leaders, and any interested citizens could learn about the environmental laws pertaining to outdoor fires. Field inspectors made presentations to community and school groups to spread the word.

This public education campaign highlighted three basic concerns: 1) that the blaze does not become a wildfire; 2) that it does not create a health hazard or public nuisance; and 3) that it does not harm the environment.

Unfortunately, open burning remains a major source of citizen complaints. So, how successful is our message?

#### Who says what?

Reports from the field indicate the message is somewhat garbled due to the number of regulatory agencies involved. Let's consider some of the reasons for the confusion. The Division for Air Quality, the Division of Waste Management, and the Division of Forestry, all agencies in the cabinet, have open burning rules.

Another regulatory factor is local government. City and counties may create an open burning ordinance. The local fire chief, by the nature of his or her position, can determine policy on open burning. A person may dial up the preferred agency and think that he's getting the full story. Therein lies the communication problem. So, what is the complete story on open burning?

The full story is that all these organizations have a regulatory relationship regarding open burning. The legal relationship is designed like a tree.

#### The open burning rule

The trunk is 401 Kentucky Administrative Regulation (KAR) 63:005 Open Burning. This regulation is a blanket

# Outdoor fires regulated by many agencies

Don't get in hot water over open burning laws.

prohibition against open burning which is defined in Section 1(3) as, the burning of any matter without an approved burn chamber and a stack or chimney with approved control devices. The Division for Air Quality is the primary enforcement agency for 401 KAR 63:005 Open Burning.

It is illegal for a state agency or local government to approve an action that circumvents the authority of a state regulation – in this case, the open burning ban. However, the open burning regulation has twelve exemptions for very unique situations to allow burning. These **exemptions** from the open burning ban can be controlled under the regulatory authority of another state agency or a local government.

So, even if the type of burning you want to do is exempted from the open burning ban, you do not get a "free pass." Other state and local regulations may apply.

#### Forestry protection

The regulatory tree starts to split into big branches with the Division of Forestry, the agency authorized under Kentucky Revised Statutes (KRS) 149 to enforce 24 laws dealing with outdoor fire hazards. These laws are connected to the open burning regulation. The exemption in 401 KAR 63.005 Section 3 (11) states:

*Fires set for disposal of natural growth for land clearing, and tree and tree limbs felled by storms, if no extraneous materials such as tires or heavy oil which tend to produce dense smoke are used to cause ignition or aid combustion and the burning is done on days when conditions do not pose a threat of igniting a forest fire...*

However, before you burn according to this exemption consider the following Division of Forestry prohibitions which are most commonly violated:

*Do not burn on or near timberland belonging to you or your employer without taking reasonable precautions to prevent the fire spreading to someone*



**To burn or  
not to burn...**

The simple solution is to find an alternative to open burning. Reduce, reuse, recycle!

Recycling and composting are methods of dealing with waste that are easy on the environment. Leaves are an excellent ingredient for compost. Household garbage is another material suitable for a residential compost pile.

If unwanted household items are reusable and in good shape, recycle by giving them to a local charity.

Waste collection service is available in most areas of the state for remaining household rubbish and garbage. All counties in Kentucky have a solid waste coordinator to implement a management plan that addresses disposal of solid waste.

What about campfires? Fires for warmth and cooking are legal under Air Quality regulations. But remember, you also have to follow Forestry and Fire Marshal rules. Here's an alternative to campfires suggested under the Leave No Trace principles (<http://www.lnt.org/>): "Lightweight camp stoves are essential for low-impact camping and have engaged a shift away from fires. Stoves are fast and eliminate firewood availability as a campsite selection concern."

*else's land. The fire must be tended at all times. (KRS 149.375)*

The intent of these laws is to prevent forest fires. During the two official Forest Fire Hazard Seasons, which run from Feb. 15 to April 30 and Oct. 1 to Dec. 15, it is unlawful to set fire to any flammable materials capable of spreading fire, located in or within 150 feet of any woodland or brushland, except between the hours of 6 p.m. to 6 a.m.

Continued on Page 14





## What's your choice?

The Kentucky Heritage Land Conservation Fund Board is giving people with a valid Kentucky driver's license a chance to vote on the next nature license plate. A ballot is available online at the Kentucky Department for Natural Resources page (<http://www.state.ky.us/agencies/nrepc/dnr/dnrhome2.htm>) or by contacting Caragh Maloney at the Fish and Wildlife Resources Department, (502) 564-3400. Ballots must be in by March 31, 1999. Money from the fund is used to purchase land from willing sellers for nature preserves and other natural areas.

## Outdoor fires regulated by many agencies

**IMPORTANT NOTE:** Forestry's spring fire season dates and 6 a.m. to 6 p.m. burning hours are "new." The changes are due to legislative action.

Forestry rules also apply to another exemption, 401 KAR 63.005 Section 3(1-2), bonfires and campfires for warmth or cooking. These types of fires are legal if the fires don't endanger the forest during very dry seasons. Always consider the possible hazards of a recreational fire. Safe fire practices are your responsibility.

So, are you ready to light that fire? No!

### Other rules

The state Fire Marshal's Office has a rule that states: Don't light a fire within 50 feet of any structure. Fire-extinguisher equipment must be available for immediate use. So, keep some water near that bonfire!

The Division for Waste Management has a large branch on the tree. It enforces statutes and regulations limiting open burning at solid waste sites: No solid waste site or facility can engage in open burning of solid or hazardous wastes. (401 KAR 47.030) Any type of open burning at one of these sites must be planned very carefully. Don't burn if there is a possibility of igniting a solid or hazardous waste and releasing dangerous pollutants. One common "offending" item is tires. It is illegal to burn tires or plastic products because the emissions contain toxic pollutants.

At the top of the tree are the counties and cities that have local ordinances to meet the long term or short term needs of their communities. In times of severe

drought, a county judge may issue an executive order prohibiting open burning. If this happens, any state exemption is no longer applicable for that particular county.

Let's travel back down the trunk and consider another important facet of the open burning regulation for smoggy areas of our state with ground-level ozone pollution problems. These areas have been designated as "non-attainment" regarding the federal ozone standard. These include Boone, Kenton, and Campbell counties in Northern Kentucky and the Louisville Metropolitan area including Jefferson County and parts of Bullitt and Oldham counties.

The exemptions in 401 KAR 63.005 Section (3) that allow the burning of natural growth, leaves, and household trash are prohibited in these ozone non-attainment areas during ozone season, May through September. Pollution from burning would further degrade the air quality.

### Can I burn leaves & garbage?

People often ask, "Can I burn leaves?" The answer is, maybe.

An exemption in 401 KAR 63.005 Section 3(8) states: *Fires set by individual home owners for burning of leaves except in cities greater than 8,000 population located in a Priority I region.*

So, burning leaves is **not** permitted if you live in a big city. Priority 1 regions are defined in 401 KAR 50:020 Air Quality Control Regions, which include most of the metropolitan areas in Kentucky. Priority 1 applies to a federal designation for particulate matter. If you

*Continued from Page 13*

live in a small community with a population of less than 8,000, you should still review any local ordinances before lighting a fire.

Another popular question is "Can I burn garbage?" The short answer is NO!

Garbage is defined as putrescible animal and vegetable matter accumulated by a family in a residence in the course of ordinary day-to-day living. An exemption in 401 KAR 63.005 Section 3(9) allows a fire for disposal of household rubbish (generally paper products), not to include garbage, originating at a dwelling of five (5) family units or less. A home or small apartment complex would fit the description. An occupant of the dwelling must maintain the fire. This is not applicable to cities with a population greater than 8,000 and located in a Priority I region.

### For more information...

Violations of state air quality regulations can bring fines of up to \$25,000 a day. Contact a cabinet regional office near your home to get answers to questions on open burning. You may also call the Division for Air Quality in Frankfort at (502) 573-3382 for additional information. There is information online and a link to regional office phone numbers at <http://www.state.ky.us/agencies/nrepc/dep/daq/faq/burn.html> To find out more about forest fire laws and other forestry issues you may contact the Division of Forestry at (502) 564-4496. The Forestry website is at <http://www.state.ky.us/agencies/nrepc/dnr/forestry/dnrdf.html>

**More than 600 attend**

## **Rep. Moberly, others honored during conservation convention**

**By Martin Bess  
Division of Conservation**

State Rep. Harry Moberly of Madison County received the 1998 Conservation Person of the Year award during the Kentucky Association of Conservation Districts State Convention in July.

Moberly, who has served 19 years in the Kentucky General Assembly, was selected for his support in the legislature and dedication to the conservation district movement. Moberly works to ensure the availability of technical and financial support to Kentucky landowners as they address important environmental concerns.

The convention was held July 19-21 at the Hyatt Regency Hotel in Lexington with almost 600 people attending. The conference opened Sunday with a Soil Stewardship Program with music provided by The Regals and a stewardship message by Steve Coleman, director of the Division of Conservation. The conference closed with a banquet Tuesday with the presentation of awards and a program by Dr. Carl Hurley, "America's Funniest Professor."

The KACD holds this conference annually to update members and other attendees on water quality and conservation programs and recognize those who contributed to Kentucky's conservation programs over the past year.

The highlight of the year's program included a session titled "Conservation Districts Sharing Ideas," where seven districts were selected to share their programs. This session had the largest attendance of the convention. The display area was also very popular.

During the business session the association elected officers. Re-elected for two-year terms were John Chism, president; Patrick Henderson, vice president, and Kevin Jeffries, secretary/treasurer.

Other awards presented were:

***The Distinguished Service Award.***

This year's winner is David G. Sawyer, state soil conservationist for the Natural Resources Conservation Service, U.S. Department of Agriculture, for his service to the Kentucky's Conservation District



Program. Sawyer was recognized for rejuvenating the technical assistance available through the Natural Resources Conservation Service and working to strengthen the relationship within the Kentucky conservation district program.

***The Outstanding Conservation Cooperator Award.*** The 1998 state winner is Charles David Kranz of Todd County (awarded \$500). The state runner-up is Mr. and Mrs. Robert C. Wade Sr. of Hardin County (awarded \$250). The association recognizes farmers who are taking the initiative to implement sound, innovative and cost-effective conservation techniques on best management practices. The farm operation must have been used to demonstrate and educate other members of the community about the problems and solutions associated with soil and water conservation.

***The Outstanding Conservation Education District of the Year.*** The winner is the Jefferson County Conservation District.

***The Secondary Environmental Teacher of the Year.*** The winner is Peggy Kelly of Kenton County, a science teacher at St. Agnes School in Covington.

***The Elementary Environmental Teacher of the Year.*** The winner is Vera Prater of Jefferson County. Ms. Prater is a science teacher at Fern Creek Elementary.

***The Goodyear National Association of Conservation Districts Conservation Awards.*** This program emphasizes the concepts of planning and evaluation of district services. Each year, two Goodyear state winners are selected. The eastern winner is Fleming County Conservation District, and the western winner is Jefferson County Conservation District.

Once a district receives the Goodyear Award, it is ineligible to receive the award

again for five years. However, during this time, if a district continues carrying out an outstanding program and enters the contest, it is eligible to receive an Honor Award. Honor Awards were given to Hancock, Bath, Letcher, Hardin, Clark, Daviess, Graves, and Scott county conservation districts.

Also, these counties were recognized as Goodyear Area Winners: Area 1, Livingston; Area 2, Hopkins; Area 3, Warren; Area 4, Bullitt; Area 5, Owen; Area 6, Madison; Area 7, Russell; Area 8, Montgomery; and Area 9, Harlan.

Additional awards presented were: Forestry, Hart County Conservation District and the South Central District; Soil Stewardship, Pendleton County Conservation District; Junior Board, Grant County Conservation District Junior Board; ACD Auxiliary Scholarship, Cheston Wilson of Casey County; and the George Crafton Memorial Scholarship, Jerry Lee Sisk II of Hopkins County.

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## **Orchid poster**

***Continued from inside front cover***

ally 9,000 were printed. The Kentucky Department of Fish and Wildlife Resources recently requested the printing of another 4,000.

Preparation of the artwork, photography, layout, and design of the *Orchids of Kentucky* poster were donated, but funding is needed to support the costs of printing it. Donations toward the printing costs may be made to Frog Loggers Inc., and mailed to the attention of Mark Gumbert, The Nature Conservancy, 642 W. Main Street, Lexington, KY 40508.

Frog Loggers is a not-for-profit organization whose main goal is to provide educational materials for schools in Kentucky. As part of this goal, they are handling the printing of the Kentucky Natural History posters. The Nature Conservancy is accepting mail on behalf of Frog Loggers. Donations of any amount are gladly accepted; the entire amount donated will go toward the actual printing of *Orchids of Kentucky*. Please reference "orchid" on your donation.

# Meeting new ozone standard 'not easy'

The Kentucky Division for Air Quality is monitoring ozone levels in seven areas within the commonwealth to determine their compliance with the 8-hour ozone standard adopted last year by the U.S. Environmental Protection Agency.

The new standard, which is based on an 8-hour average rather than the 1-hour period used by the old ozone standard, is set at 80 parts per billion (ppb) parts of air. The old standard was 120 ppb. Parts per billion is a way to describe how much ozone pollution is contained in an air sample.

Ground-level ozone, a major component of smog, is a pollutant formed when car exhaust and other pollutants are heated by the sun.

Only two areas in Kentucky (the Louisville and Cincinnati metropolitan areas) currently are listed as "nonattainment" for the old 1-hour ozone standard. The U.S. EPA will use monitoring data from 1997, 1998, and 1999 to determine which areas are not meeting the new 8-hour standard.

A violation of the new ozone standard occurs when the fourth highest 8-hour average for each of three consecutive years, when averaged together, exceeds 84 ppb.

County	Site ID	1-hr	8-hr
Ferry	Heazlet	0	0
Fike	Heazlet	0	4
Ball	Millersburg	0	4
Pulaski	Somerset	0	3
Fayette	Lexington Pike	0	4
Fayette	Lexington Pike	0	3
Jessamine	Richmond	0	5
Scott	Salemville	0	6
Campbell	Caydon	0	8
Kenton	Covington	1	10
Boone	East Bend	0	3
Wavess	Owensboro	1	4
Hancock	Lewisport	0	12
McLean	Guthrie	0	4
Henderson	Henderson	0	1
Henderson	Berkley	0	3
Boyle	Ashland	2	2
Freshman	Warrington	3	7
Lawrence	Webbville	0	2
Carroll	Grayson	0	1
Oldham	Buckner	1	7
Hardin	Elizabethtown	0	2
Bullitt	Shepherdsville	0	3
McCracken	Paducah	1	5
Dyersburg	Sidney	2	10
Dyersburg	Woodworth Farm	1	5
Graves	Symmes	0	4
Simpson	Franklin	0	11
TOTALS		12	158

This table represents the number of exceedences (readings over the standard) of the 8-hour and 1-hour ozone standards reported at sites operated by the Kentucky Division for Air Quality. The totals were derived from data collected from April 1 through September 17, 1998. Not all of the data has been subjected to full quality assurance review, and therefore this information should be treated as raw data. Division for Air Quality table

According to Larry Garrison, manager of air monitoring for the division, monitors have measured 8-hour readings over 84 ppb 168 times in 1998. The fourth highest average for 1998 has exceeded 84 ppb in 20 counties. "Although these results will not be official until later in the fall," said Garrison, "they do serve as a strong warning that meeting the new ozone standard will not be easy."

EPA has indicated that many of the areas that violate the new standard will come into attainment or compliance if emissions of oxides of nitrogen are substantially reduced from power plants and large industrial boilers. (See related story under Air News, Page 12.)

Questions about ozone monitoring data may be directed to the division's Technical Services Branch in Frankfort, (502) 573-3382.



## Vehicle testing planned for Northern Kentucky

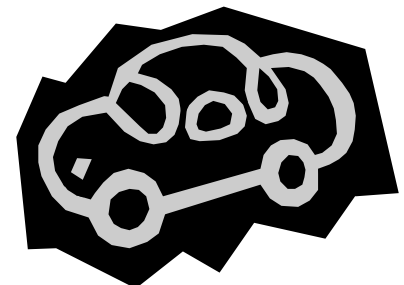
The Division for Air Quality plans to test vehicle emissions in Boone, Campbell, and Kenton counties in an effort to control smog problems in Northern Kentucky and Cincinnati.

Federal law requires emission reductions in areas where the ozone standard is exceeded. Northern Kentucky is one of these areas, and vehicle emissions are a significant contributor to the ozone problem there. The division has designed the program to be as inexpensive, convenient, and efficient as possible while improving the region's air quality.

The program, expected to go into effect in the fall of 1999, will require

Northern Kentuckians to get their vehicles tested once every two years. There will be three testing stations — one in each of the three Northern Kentucky counties. The cost of the Kentucky test will be about \$20. Once a vehicle passes the test, it is eligible to receive its annual state-required vehicle registration. If it fails, repairs must be made to improve the emissions. If repairs exceed a set amount, depending on the vehicle age, and the vehicle *still* fails the test, the division can issue a waiver that will allow the vehicle to be registered.

The division selected a professional emissions-testing contractor in July 1998, and reconfirmed that selection in October. Work is beginning to build and staff the



three testing stations. The first test should begin in the fall of 1999.

Questions about the program should be directed to the division's Special Programs Branch in Frankfort, (502) 573-3382.



## Survey advised for property near deep mines

**By Ralph King  
Surface Mining**

Much of the coal in both the Eastern and Western Kentucky coalfields is mined using underground methods.

Conventional underground mines use the room and pillar technique in which coal is removed from rooms and pillars are left between each room to hold up the rock above. This type of mine design has been used for generations and will allow 50 to 60 percent recovery of the natural resource.

A relatively new idea, the long-wall mine design, uses equipment capable of removing panels of coal up to 1,500 feet wide and thousands of feet long. This technique leaves pillars of coal between each panel to support the overlying rock, but the rocks above the mined panel are not supported and fall into the void.

Mine engineers study the geology of the mine site and strength of the coal to determine the shape and size of each of the rooms, panels and pillars. The idea is to design the mine so that the effects of a roof fall, or subsidence, will not reach the surface. However, sometimes the subsidence does reach the surface.

### **Property damage can occur**

This subsidence can cause depressions in the flat fields of Western Kentucky, and can cause cracks that have been known to extend to the tops of hills in the east. When subsidence occurs, buildings, homes, and other commercial structures may be damaged due to lateral

and/or vertical movements at the surface.

The Kentucky legislature revised the regulation, 405 Kentucky Administrative Regulation 18:210 Subsidence control, to provide repair or compensation for property owners adversely affected by deep mine subsidence.

If subsidence damage occurs, a “rebuttable presumption” exists that the damage was caused by the permittee. In other words, the coal company is held responsible for the damage, unless the miners prove the damage is not related to the subsidence of the deep mine.

This regulation also includes damages to water supplies, such as wells and springs.

Angle of draw describes the line between the edge of the underground works to the surface. This angle will generally be 21 to 30 degrees from vertical in the Appalachian coal fields

and up to 57 degrees in the Illinois basin, which includes the Western Kentucky coalfields. Where this line intercepts the surface defines the area where subsidence damage is possible.

### **Company must offer survey**

Under the new regulations, the coal company is required to offer the property owners in this area a pre-subsidence survey. The survey serves as a benchmark of the property’s condition, and the department will consider any damages not shown in the survey to be related to the permittee if subsidence occurs. No underground mining may be conducted within 1,500 horizontal feet of the surface property until the survey is performed.

If the property owner denies the permittee access to conduct the survey, mining may continue and the rebuttable presumption is no longer applicable.

The cabinet’s Department for Surface Mining Reclamation and Enforcement, has jurisdiction over surface disturbance and effects caused by underground mining. *The department is urging all citizens who live and/or own property, which may be affected by proposed underground mines to have a pre-subsidence survey conducted.* The local newspaper will carry advertisements of proposed underground mining activities in the classified section. If you happen not to see the advertisement, the coal company is required to notify each property owner within the affected area of this right to a pre-subsidence survey.

For further information, please call the department at (502) 564-2340.

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*Turn to Page 19 for information on Surface Mining’s new Citizen’s Guide and its new website.*



**The photo at the top of the page shows a subsidence crack that goes to the top of an Eastern Kentucky ridge. This photo shows a bare area in a soybean field due to excess moisture in a depression caused by deep mine subsidence.**  
DSMRE photos



## Clean waters: healthy people

*"Every child deserves to grow up with water that is pure to drink, lakes that are safe for swimming, rivers that are teeming with fish. We have to act now to combat these pollution challenges with new protections to give all our children the gift of clean, safe water in the 21st century." President Clinton.*

People depend on clean water for their health and well-being. While most people get drinking water from a system that treats it to ensure safety, there is growing recognition of the value of protecting the high quality of drinking water sources. According to the U.S. Environmental Protection Agency, recreational fishermen, low-income people supplementing their diet, and others who regularly catch and consume fish and shellfish from nearby rivers, lakes, and coastal waters are more highly exposed to mercury and other pollutants. The greatest risk of harm exists for women of childbearing age, as fetal nervous systems are more sensitive than adult systems. For more information on the Clean Water Action Plan to protect water sources, go to the EPA Office of Water at <http://www.epa.gov/ow/>. Information for young people is at EPA's Nonpoint Source Kids Page at <http://www.epa.gov/OWOW/NPS/kids/>. Look under the link to Groundwater and Drinking Water Kids' Page for instructions on *How to Build Your Own Watershed*.



Clean Water  
Action Plan

Restoring &  
Protecting  
America's Waters

## Plan is unified effort to protect water sources

By Maleva Chamberlain  
Division of Water

The President's Clean Water Action Plan, released in February 1998, has a broad vision of watershed restoration and protection through cooperative approaches.

State, federal, and local governments, together with interested citizens, were asked to identify watersheds with the most critical water quality problems and to work together to solve these problems. A watershed is a land area that drains to a river, stream, lake or ocean.

Pending Congressional appropriations, this planning process should lead to funding of five priority watershed areas for restoration in the 1999-2000 federal fiscal year.

The Kentucky Division of Water (DOW), together with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), were the lead agencies in drafting a *Unified Watershed Restoration List* for Kentucky. The public and various agencies were also asked to provide input on priority watersheds.

The draft *Unified Watershed Restoration List* for Kentucky was drawn from existing priority watershed or natural resource lists such as the 1998 303(d) *List of Impaired Waters for Kentucky* and the 1998 Environmental Quality Incentive Program Priority Watersheds.

To be included on the Unified Watershed Restoration List for Kentucky, waters had to meet the following criteria:

- ✓ be listed on the 303(d) priority impaired waters list;
- ✓ have had a total maximum daily load (allowable amount of pollutants) calculated or under development or be scheduled for TMDL development;
- ✓ contain an area of concern that is of a manageable scale; be a "doable" project, given the nature of the problem, local stakeholder support and organization;
- ✓ and, in some cases, have a plan of action that has already been developed by local citizens to address the problem or at least to be of sufficient local interest to develop and implement a restoration plan.

The draft list was provided for public comment on Aug. 1. It was finalized Oct. 1, 1998.

Water bodies listed include the following: Licking River Watershed, Fleming Creek, impaired by agriculture; Upper Cumberland Watershed, Upper Cumberland River, impaired by straight pipes, failing septic systems, and municipal point sources; Upper Cumberland Watershed, Rock Creek, impaired by resource extraction; Lower Cumberland Watershed, Little River, impaired by agriculture; Lower Basin of Kentucky River Watershed, Dix River, impaired by agriculture and municipal point sources.

The *Unified Watershed Restoration List* also outlines goals and methods for restoration for each of the impairments.

New information is continually being made available as additional monitoring data is collected under Kentucky's interagency monitoring effort; thus top priorities will shift over time. The Watershed Restoration Priority list provided in this document is for the 1999-2000 funding period only. Any future "incremental" funding above base allocations to Kentucky will be targeted to watersheds listed on the Kentucky 303(d) *List of Impaired Waters* for that time period. Those funds would be prioritized/targeted under the Watershed Management Framework process. The Watershed Management Framework provides for Kentucky's long-term schedule for prioritizing the remaining impaired and threatened waters.

Congress has appropriated additional funding that can be utilized to address the shared areas of concern.

Turn to Page 19 for a Watershed Management Update

# Watershed Management Activities Update

*Watersheds are nature's boundaries. They are the areas that drain to surface water bodies. A Watershed Protection Approach is a strategy for effectively protecting and restoring aquatic ecosystems and protecting human health. This strategy has as its premise that many water quality and ecosystem problems are best solved at the watershed level rather than at the individual waterbody or discharger level. Furthermore, it is essential to involve everyone who has a stake in the watershed.*

## **Watershed Watch is citizen participation group**

A joint state/citizen-led group called Watershed Watch was organized in the spring of 1997. Its intent is to involve residents of watersheds in the basin management process. Volunteers receive six hours of training in water quality issues, monitoring methods, and data assessment.

Since the program began, more than 400 volunteers have been trained, organized into some 100 teams, and have visited 220 stream sites in the three basins currently involved in watershed management: the Kentucky River Basin, the Licking River Basin, and the Salt River Basin. Volunteers collect water samples for analysis for pesticides, nutrients, metals, and fecal coliform and also make

field observations on habitat land use and aquatic life.

Training emphasizes the need for quality control, and samples are analyzed by a professional laboratory. Data are evaluated with the assistance of professionals and incorporated into a computer mapping system.

Each fall, a conference is held in each of the basins to discuss results. The discussion at the conferences among agency officials, academicians, and citizens is intended to provide information and insight for all attendees, with recommendations made for future action.

Information provided by Watershed Watch volunteers will also be evaluated by basin teams in the assessment and prioritization phases of the watershed management cycle.

See information on Watershed Watch on the World Wide Web at <http://water.nr.state.ky.us/watch/>

## **Basin status reports are ready**

Each watershed management basin cycle begins with the production of a brief informational report on the status of the basin. These reports are jointly developed and funded by members of the basin teams or the Steering Committee. Nearly 8,000 copies of the *Kentucky River Basin Status Report* have been

distributed to residents in the Kentucky River Basin alone. See the Kentucky River Basin Status Report at <http://www.state.ky.us/agencies/nrepc/kra/status1.htm> The Salt and Licking reports were planned for release in time for the fall Watershed Watch conferences.

## **Basin monitoring strategy is prepared**

An interagency monitoring workgroup has met through the last two years to define common terms, identify monitoring objectives, and lay out a strategy for collecting chemical, physical, and biological data in each river basin. This effort has been complicated by the fact that surface and groundwater concerns and strategies are being broadly coordinated for the first time ever.

Represented in the monitoring workgroup are universities, state and federal agencies, and citizens' monitoring efforts. The joint monitoring effort being completed this fall in the Kentucky River Basin should result in a significant increase in assessments for the basin (1,200 miles this year alone compared to a total of 1,738 for all previous years combined).

*Continued on Page 20*

## ***Surface Mining Dept. has new Citizen's Guide***

The Department for Surface Mining Reclamation and Enforcement has a new Citizen's Guide.

Commissioner Carl Campbell recognized the need to provide information and services to citizens who may be directly or indirectly impacted by surface mining activities. This concern brought about the development of the Citizen's Guide.

This guide is written to give immediate and direct assistance to citizens with mining related questions.

It defines many potential problems concerning surface mining, then gives the location and phone number of the department staff that could most quickly provide help on each question/issue. The department functions are briefly outlined,

explaining the role of the Administrative Office in Frankfort and the divisions of Permits, Field Services, and Abandoned Mine Lands. Current regulations guarantee citizens the right to participate in certain mining operations. This guide describes four such opportunities and outlines the procedures to follow for citizen participation.

There is a brief history of mining in Kentucky, along with the department's Mission Statement and general comments from Commissioner Campbell. Next is a listing of most commonly asked questions with answers for each question submitted by department staff.

Commissioner Campbell would like for readers to use the perforated Citizen's Survey form to comment on department

services. These comments can be used to improve services and also the design and content of future issues of the Citizen's Guide.

To get a copy, contact the Kentucky Department for Surface Mining Reclamation and Enforcement, Commissioner's Office, #2 Hudson Hollow, Frankfort, KY 40601; (502) 564-2340.

Surface Mining Reclamation and Enforcement has a new website at <http://kydsmre.nr.state.ky.us/> Another good source of information is the Coal Education Website maintained by the Kentucky Coal Marketing and Export Council at <http://w.coaleducation.org/>

# Water News



## **Report to Congress will be on Internet**

A summary of the 1998 *Report to Congress on Water Quality* (305[b] Report) will be available on the World Wide Web at <http://water.nr.state.ky.us/305b> Section 305(b) of the Clean Water Act requires each state to submit a report on the state's water quality every two years.

In the past, the Division of Water has produced this report as a print document in narrative fashion. Data accompanied the narrative as appendices. This year, the division was allowed to submit data only, in place of the narrative report. A summary of the data is being prepared for web publication.

## **Water standards undergoing review**

The triennial review of the state's water quality standards began this fall with discussions of issues with interested parties.

The Division of Water will then submit a Notice of Intent to promulgate regulations in early 1999 to the Legislative Research Commission. A public hearing on the Notice of Intent will be held (date, time, and place will be announced). Following the public hearing, the division will embark upon the full regulation promulgation process to revise the water quality standards in light of

information from the discussions and the public hearing.

## **Watershed Update Continued from Page 19 TMDL modeling enhanced**

Modeling capabilities for total maximum daily load (TMDL) development have been enhanced through a cooperative agreement with the Water Resources Research Institute and training in the EPA BASINS software. A review of watershed models has been completed and summarized.

Kentucky currently has six draft TMDLs, one with eight stream segments, and seven approved TMDLs, one with 16 stream segments. (An article about TMDL development appeared in the August *Land, Air & Water*.)

## **Source water planning continues**

The reauthorization of the Safe Drinking Water Act requires that all states submit Source Water Assessment Plans to EPA for approval. Kentucky has had a source water protection and planning process in place since the early 1990s.

Kentucky statutes require each county to complete a source water protection plan by the summer of 1999. Failure to complete this planning process will result in non-endorsement for future funding and permitting. This planning process has been adapted so that future updates of these plans will occur in

coordination with the five-year basin management cycle. Additionally, a few agencies have begun to rewrite their agency planning documents around this schedule.

The Watershed Steering Committee took up the role as a technical advisory committee for Kentucky's submittal of its Source Water Assessment Plan to EPA. Kentucky was the first state in the nation to submit its plan and receive approval.

The Kentucky River Authority has contracted with Eastern Kentucky University to establish a number of local planning teams throughout the basin. These teams will serve as forums to pull together various interest groups for coordinated local planning. The groups will also play a role in helping set basin priorities.

## **Funding**

Several recent efforts have been made to make funds available for source water protection. The Division of Water has opted to promote non-regulatory solutions for source water protection by using a portion of the Safe

Drinking Water Act set-aside funds to provide assistance to public water systems. This assistance will take the form of loans for the acquisition of land or for conservation easements for source water protection.

In addition, the Nonpoint Source Section of the Division of Water, a program that administers the Section 319 Nonpoint Source Grants program, has incorporated add-on points to favor grant proposals that follow the basin management schedule. Initially, proposals that promote citizens' participation and education in the first year of the basin management cycle will receive bonus points. Later, projects that implement approved watershed plans will receive additional points.

The *Unified Watershed Restoration List* can be viewed on the World Wide Web at <http://water.nr.state.ky.us/dow/cwap.htm> To learn more about Kentucky watershed management and locate your watershed, go to <http://water.nr.state.ky.us/dow/watrshtd.htm>

## **Nominations sought for Wildflower of the Year**



What's your favorite wildflower?

Cast your vote for the 1999 Wildflower of the Year by sending a postcard by Jan. 15 to the Kentucky Department of Fish and Wildlife. The flower should be:

- ✓ Native, fairly common to common, and widespread in the state.
- ✓ Available as plants or seeds from commercial nurseries.
- ✓ Easy to grow and low maintenance.
- ✓ Valuable as food or plant cover to a variety of wildlife.

Winners in previous years were the butterfly milkweed (*Asclepias tuberosa*) in 1997 and the cardinal flower (*Lobelia cardinalis*) in 1998.

Include this information on your postcard: common name of the plant; scientific (Latin) name if known; description of the plant; reasons for your choice; and your name, address, phone number and (if applicable) e-mail address. Send your card by the Jan. 15 deadline to Sherri Evans, Salato Native Plant Program, # 1 Game Farm Rd., Frankfort, KY 40601.



## ***Cabinet sponsors poster contest for Grades 1-8***

### ***Why is the cabinet having a poster contest?***

The 1998 Kentucky General Assembly designated the fourth week in March as **Commonwealth Cleanup Week** to support efforts to spring clean our wonderful state. The legislature also asked the Natural Resources and Environmental Protection Cabinet to coordinate a statewide poster contest to promote the week.

### ***Who can participate?***

All Kentucky students, public and non-public, in grades 1-8 are eligible to submit a poster, which will provide information and/or draw attention to cleaning up our state!

### ***Each contest has rules to follow. What about this contest?***

Our rules are very simple:

1). All Kentucky students grades one through 8 are eligible to compete in the poster contest.

2). An entry must be created by one, and only one, student.

3). All entries become property of the contest sponsors and may be used for promotional purposes. The decisions of the judges at all levels of competition are final.

4). Artwork must be standard art poster board size – 22" x 28" (smaller originals may be mounted onto this size board). Any thickness or color of art board or cardboard may be used. NO plywood or composition board will be accepted. The use of copy-righted characters is prohibited. Artwork may be rendered in any medium: pencil, ink, charcoal, crayon, oil, etc., but it must be flat art. While 3-D art is unacceptable, art pasted onto your board will be acceptable as long as it is flat art pasted securely to the poster board. An art entry may take the form of a poster, making sure that whatever form is used, the artwork conveys a message at a glance.

5). The TOP THREE posters from your school must be submitted to your local county conservation district by Feb. 1, 1999.

6). The official entry form (photocopies are acceptable) must be completed and securely attached to the back of your entry.

Packets containing the form and other information will be available at local conservation district and extension service offices.

### ***Will first-grade students compete against 8th-graders?***

No. The contest is divided into three grade categories: 1st and 2<sup>nd</sup>; 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup>; and 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grades.

### ***What are the prizes?***

All students who prepare a poster will receive a Certificate of Participation. The winner in each grade category will receive a T-shirt commemorating Commonwealth Cleanup Week. County winners will get \$50 U.S. savings bonds. State winners in each grade category will receive a \$100 bond and the winning posters will be displayed at the 1999 Governor's Conference on the Environment. The winning student's school will receive a \$1,500 grant to be used for an environmental education program.

### ***Who will judge the posters?***

Each school will select a winner in each grade category and submit those posters to the county conservation district office. The county conservation officer, extension specialist and solid waste coordinator will select a county winner in each grade category. The county winners will be sent to Frankfort for the selection of state winners in each grade category.

Natural Resources and Environmental Protection Cabinet  
Public Information and Education Branch  
4th Floor, Capital Plaza Tower  
Frankfort, KY 40601

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